



PTO/SB/17 (07-06)

Approved for use through 01/31/2007 OMB 0651-0032
U.S. Patent and Trademark Office, U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no person are required to respond to a collection of information unless it displays a valid OMB control number.

FEE TRANSMITTAL For FY 2005 <input type="checkbox"/> Applicant claims small entity status. See 37 CFR 1.27		Complete if Known	
		Application Number	10/691,583-Conf. #9481
		Filing Date	October 24, 2003
		First Named Inventor	Kazuhiro Yanadori
		Examiner Name	C. P. Bruenjes
		Art Unit	1772
TOTAL AMOUNT OF PAYMENT		(\$)	500.00
		Attorney Docket No.	OGW-0317

METHOD OF PAYMENT (check all that apply)

☐ Check ☐ Credit Card ☐ Money Order ☐ None ☐ Other (please identify): _____

☒ Deposit Account Deposit Account Number 18-0013 Deposit Account Name: Rader, Fishman & Grauer PLLC

For the above-identified deposit account, the Director is hereby authorized to: (check all that apply)

☒ Charge fee(s) indicated below ☐ Charge fee(s) indicated below, except for the filing fee

☒ Charge any additional fee(s) or underpayment of fee(s) under 37 CFR 1.16 and 1.17 ☒ Credit any overpayments

FEE CALCULATION**1. BASIC FILING, SEARCH, AND EXAMINATION FEES**

Application Type	FILING FEES		SEARCH FEES		EXAMINATION FEES		Fees Paid (\$)
	Fee (\$)	Small Entity Fee (\$)	Fee (\$)	Small Entity Fee (\$)	Fee (\$)	Small Entity Fee (\$)	
Utility	300	150	500	250	200	100	
Design	200	100	100	50	130	65	
Plant	200	100	300	150	160	80	
Reissue	300	150	500	250	600	300	
Provisional	200	100	0	0	0	0	

2. EXCESS CLAIM FEES

Fee Description	Fee (\$)	Small Entity Fee (\$)
Each claim over 20 (including Reissues)	50	25
Each independent claim over 3 (including Reissues)	200	100
Multiple dependent claims	360	180

<u>Total Claims</u>	<u>Extra Claims</u>	<u>Fee (\$)</u>	<u>Fee Paid (\$)</u>	<u>Multiple Dependent Claims</u>	
-	=	x	=	<u>Fee (\$)</u>	<u>Fee Paid (\$)</u>
HP = highest number of total claims paid for, if greater than 20					
<u>Indep. Claims</u>	<u>Extra Claims</u>	<u>Fee (\$)</u>	<u>Fee Paid (\$)</u>		
-	=	x	=		
HP = highest number of independent claims paid for, if greater than 3					

3. APPLICATION SIZE FEE

If the specification and drawings exceed 100 sheets of paper (excluding electronically filed sequence or computer listings under 37 CFR 1.52(e)), the application size fee due is \$250 (\$125 for small entity) for each additional 50 sheets or fraction thereof. See 35 U.S.C. 41(a)(1)(G) and 37 CFR 1.16(s).

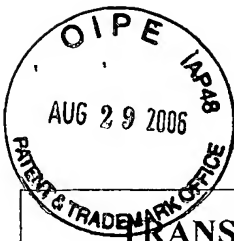
<u>Total Sheets</u>	<u>Extra Sheets</u>	<u>Number of each additional 50 or fraction thereof</u>	<u>Fee (\$)</u>	<u>Fee Paid (\$)</u>
- 100 =		/50	(round up to a whole number) x	=


4. OTHER FEE(S)

Non-English Specification. \$130 fee (no small entity discount)	
Other (e.g., late filing surcharge): 1402 Filing a brief in support of an appeal	500.00
	Fees Paid (\$)

SUBMITTED BY

Signature	<u>David T. Nikaido</u> 57,199	Registration No (Attorney/Agent)	22,663	Telephone	(202) 955-3750
Name (Print/Type)	David T. Nikaido	Date	August 29, 2006		



TRANSMITTAL OF APPEAL BRIEF			Docket No. OGW-0317
In re Application of: Kazuhito Yanadori			
Application No. 10/691,583-Conf. #9481	Filing Date October 24, 2003	Examiner C. P. Bruenjes	Group Art Unit 1772
Invention: POWER STEERING HOSE			
<p style="text-align: center;"><u>TO THE COMMISSIONER OF PATENTS:</u></p> <p>Transmitted herewith is the Appeal Brief in this application, with respect to the Notice of Appeal filed: <u>June 29, 2006</u></p> <p>The fee for filing this Appeal Brief is <u>\$ 500.00</u></p> <p><input checked="" type="checkbox"/> Large Entity <input type="checkbox"/> Small Entity</p> <p><input type="checkbox"/> A petition for extension of time is also enclosed.</p> <p>The fee for the extension of time is _____</p> <p><input type="checkbox"/> A check in the amount of _____ is enclosed.</p> <p><input checked="" type="checkbox"/> Charge the amount of the fee to Deposit Account No. <u>18-0013</u> This sheet is submitted in duplicate.</p> <p><input type="checkbox"/> Payment by credit card. Form PTO-2038 is attached.</p> <p><input checked="" type="checkbox"/> The Director is hereby authorized to charge any additional fees that may be required or credit any overpayment to Deposit Account No. <u>18-0013</u> This sheet is submitted in duplicate.</p> <p style="text-align: right;"> <u>57,199</u></p> <p>Dated: <u>August 29, 2006</u></p> <p>David T. Nikaido Attorney Reg. No. : 22,663 RADER, FISHMAN & GRAUER PLLC 1233 20th Street, N.W. Suite 501 Washington, DC 20036 (202) 955-3750</p>			



Docket No.: OGW-0317
(PATENT)

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of:
Kazuhiro Yanadori

Application No.: 10/691,583

Confirmation No.: 9481

Filed: October 24, 2003

Art Unit: 1772

For: POWER STEERING HOSE

Examiner: C. P. Bruenjes

APPELLANT'S BRIEF

MS Appeal Brief - Patents
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Sir:

This is an Appeal Brief under 37 C.F.R. §41.37 appealing the final decision of the Examiner dated March 30, 2006. Each of the topics required by 37 C.F.R. §41.37 is presented herewith and is labeled appropriately.

This brief is in furtherance of the Final Office Action on March 30, 2006.

08/01/2006 RECEIVED 1 00000000 100013 10001503
01 FC:1402 500.00 DA

A Notice of Appeal was filed in this case on June 29, 2006.

I. REAL PARTY IN INTEREST

The Yokohama Rubber Co., Ltd (Yokohama) is the real party in interest of the present application. An assignment of all rights in the present application to Yokohama Rubber was executed by the inventor and filed with U.S. Patent and Trademark Office on October 24, 2003. However, no Notice of Recordation has been received at this time.

II. RELATED APPEALS AND INTERFERENCES

There are no other appeals or interferences which will directly affect or be directly affected by or have a bearing on the Board's decision in this appeal.

III. STATUS OF CLAIMS

Claims 1-7 are currently pending in this application, with claim 1 being independent.

Within the Final Office Action of March 30, 2006:

- Paragraph 1 of the Office Action includes a rejection of claims 1-4 and 6 under 35 U.S.C. §103 as allegedly being unpatentable over U.S. Patent No. 3,011,525 to Randle et al. (Randle) in view of U.S. Patent No. 5,660,210 to Ikeda et al. (Ikeda).
- Paragraph 2 of the Office Action includes a rejection of claims 5 and 7 under 35 U.S.C. §103 as allegedly being unpatentable over Randle in view of Ikeda and further in view of U.S. Patent No. 5,371,153 to Kuribayashi et al. (Kuribayashi).

Thus, the status of the claims is as follows:

Claims 1-7 (rejected)

No claims are indicated within the Final Office Action to contain allowable subject matter.

Accordingly, Appellant hereby appeals the final rejection of claims 1-7 which are presented in the Claims Appendix.

IV. STATUS OF AMENDMENTS

Subsequent to the final rejection of March 30, 2006, no Amendments have been filed.

V. SUMMARY OF CLAIMED SUBJECT MATTER

The following description is provided for illustrative purposes and is not intended to limit the scope of the invention.

The present invention relates to a power steering hose, and more specifically, to a power steering hose capable of achieving both suppression of noise vibration harshness in the passenger compartment and the durability of the hose.

Claims 1-4 and 6 - Claim 1 is drawn to a power steering hose (1) comprising:

an inner rubber layer (2),

an outer rubber layer (3),

at least two reinforcing layers (5a,5b) inserted between the inner and outer rubber layers (2,3), and

an intermediate rubber layer (4) interposed between the adjacent reinforcing layers (6), the reinforcing layers (5a,5b) composed of twisted cords (6) of organic fibers,

wherein the twisted cords (6) have an intermediate elongation at 0.85cN/dtex of 2.2 to 5.0%, an elongation at break of 8 to 19% and a number of twists of 15 to 30/10 cm, respectively. (Specification at paragraphs [0010], [0013] and [0016], and throughout).

Claims 5 and 7 - Within claim 5, the twisted cords have a double-twist structure in which a plurality of primary twisted cords is twisted together with final twists in a same twist direction of the primary twisted cords. (Specification at paragraphs [0017], and throughout).

VI. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

The issues presented for consideration in this appeal are as follows:

Whether the Examiner erred in rejecting claims 1-4 and 6 under 35 U.S.C. §103 as allegedly being unpatentable over U.S. Patent No. 3,011,525 to Randle et al. (Randle) in view of U.S. Patent No. 5,660,210 to Ikeda et al. (Ikeda).

Whether the Examiner erred in rejecting claims 5 and 7 under 35 U.S.C. §103 as allegedly being unpatentable over Randle in view of Ikeda and further in view of U.S. Patent No. 5,371,153 to Kuribayashi et al. (Kuribayashi).

These issues will be discussed hereinbelow.

VII. ARGUMENT

In the Office Action of March 30, 2006:

The Examiner rejected claims 1-4 and 6 under 35 U.S.C. §103 as allegedly being unpatentable over U.S. Patent No. 3,011,525 to Randle et al. (Randle) in view of U.S. Patent No. 5,660,210 to Ikeda et al. (Ikeda).

The Examiner rejected claims 5 and 7 under 35 U.S.C. §103 as allegedly being unpatentable over Randle in view of Ikeda and further in view of U.S. Patent No. 5,371,153 to Kuribayashi et al. (Kuribayashi).

For at least the following reasons, Appellant submits that this rejection is both technically and legally unsound and should therefore be reversed.

For purposes of this appeal brief only, and without conceding the teachings of any prior art reference, the claims have been grouped as indicated below.

Claim Groups:

Claims 1-4 and 6 stand or fall together.

Claims 5 and 7 stand or fall together.

The Examiner erred in rejecting claims 1-4 and 6 under 35 U.S.C. §103 as allegedly being unpatentable over U.S. Patent No. 3,011,525 to Randle et al. (Randle) in view of U.S. Patent No. 5,660,210 to Ikeda et al. (Ikeda).

This rejection is traversed at least for the following reasons.

Claims 1-4, 6 - Within the claims, *the twisted cords have an intermediate elongation at 0.85cN/dtex of 2.2 to 5.0%, an elongation at break of 8 to 19% and a number of twists of 15 to 30/10 cm, respectively.*

Randle - Randle arguably teaches a high pressure hose having a rubber tube 5, a polyethylene terphthalate braided sleeve 7, a rubber interlayer 8, a rayon braided sleeve 9, and a rubber cover layer 10 (Randle at Figure 1, column 2, lines 56-70).

However, the Office Action admits that Randle fails to disclose, teach, or suggest an intermediate elongation at 0.85cN/dtex of 2.2 to 5.0% or an elongation at break of the twisted cords (non-final Office Action at page 3).

The Office Action contends that “whether the hose is used as a power steering hose or a hydraulic braking hose is not germane to the patentability of the article” (non-final Office Action at page 3).

In response to this contention, please note that Randle arguably relates to “hoses used in *hydraulic braking installations* for vehicles”. A power steering hose is for transferring a high-pressure pulsed fluid flow of which the pressure changes periodically, and it comes under such a hose which is used under a severe condition such that it is easily caused to undergo a fatigue due to periodic variations of a high pressure. Thus, a power steering hose is required to possess such a high-degree of durability which is incomparable with the required durability in

the case of a braking-use hose as disclosed in Randle which transfers a simple high-pressure fluid flow free of pulsating.

In addition, Randle fails to contain a reference to a power steering hose.

Ikeda - Ikeda arguably teaches the presence of a tubular rubber layer 1, a lower thread layer 2, an intermediate rubber layer 3, an upper or outer thread layer 4, and a cover rubber layer 5 (Ikeda at Figure 1, column 4, lines 47-54).

Ikeda arguably teaches the presence of the lower thread layer including a polyester, thread having a tensile strength of 8 grams or more per unit denier, an elongation of $10 \pm 1.5\%$, and a loaded elongation of $2.7 \pm 1.0\%$ per unit denier under 3-gram load (Ikeda at column 2, lines 33-37).

Within the claims, however, the twisted cords have *an intermediate elongation at 0.85cN/dtex of 2.2 to 5.0%*.

Yet, the Office Action has *failed to provide any objective teaching* to show that the characteristics of the at least the lower thread layer found within Ikeda of a tensile strength of 8 grams or more per unit denier, an elongation of $10 \pm 1.5\%$, and a loaded elongation of $2.7 \pm 1.0\%$ per unit denier under 3-gram load are the same characteristics of an intermediate elongation at 0.85cN/dtex of 2.2 to 5.0 found within the claimed invention.

In this regard, no equivalence within the Office Action has been established between those characteristics of the lower thread layer found within Ikeda and the claimed intermediate elongation at 0.85cN/dtex of 2.2 to 5.0.

Within the claims, the twisted cords have *an elongation at break of 8 to 19%*. In this regard, the non-final Office Action fails to show where within Ikeda that this feature can be found. As such, the non-final Office Action and the Final Office Action are incomplete.

In addition, Ikeda fails to disclose, teach, or suggest a number of twists of 15 to 30/10 cm, as claimed. Specifically, Ikeda is *silent* as to a number of twists.

Ikeda arguably relates to "a layered rubber hose used for passage of a pressurized fluid". Yet, Ikeda fails to contain a reference to a power steering hose.

The intermediate elongation (at 3 g/d) = $2.7 \pm 1.0\%$ recited in Ikeda may reasonably be converted to a value at "0.85cN/dtex", the unit used in the definition of the intermediate elongation in applicant's Claim 1 to find that the converted value is by far below the range of the intermediate elongations of (at 0.85cN/dtex) = 2.2 to 5.0 % defined in applicant's Claim 1, as reviewed below.

First, to convert the load used in the measurement according to Ikeda, "3 g/d", to a value at the "cN/dtex" unit, since the relativity between denier (d) and dtex and that between gf and cN are that 1d (1/1.111) dtex and that 1 gf = 9.8×10^{-1} cN, we may obtain $3\text{g/d} = 3.84 \text{ cN/dtex}$.

Therefore, assuming that the S-S curve of the fiber is linear, the intermediate elongation of Ikeda, (at 3/g/d) = $2.72.7 \pm 1.0\%$, may be converted to a value at the unit (0.85 cN/dtex) of the intermediate elongation recited in Claim 1 to obtain an intermediate elongation (at 0.85 cN/dtex) = $0.60 \pm 0.2 \%$.

When compared with (at 0.85 cN/dtex) = 2.2 to 5.0 %, the intermediate elongation defined in Claim 1, the above found intermediate elongation value, (at 0.85 cN/dtex) = $0.60 \pm 0.2\%$, is seen to be considerably small or low.

Where the intermediate elongation (at 0.85 cN/dtex) of a twisted cord used in a reinforcing layer is so low above, with a power steering hose made with use of such twisted cord it is impossible to attain such a remarkable durability as attained according to the claimed invention.

Thus, the non-final Office Action and Final Office Action have failed to show that Randle and Ikeda, either individually or in combination, would result in the claimed invention.

The Examiner erred in rejecting claims 5 and 7 under 35 U.S.C. §103 as allegedly being unpatentable over Randle in view of Ikeda and further in view of U.S. Patent No. 5,371,153 to Kuribayashi et al. (Kuribayashi).

This rejection is traversed at least for the following reasons.

Claims 5, 7 - Claim 7 is dependent upon claim 5. Within claim 5, the twisted cords have a double-twist structure in which a plurality of primary twisted cords is twisted together with final twists in a same twist direction of the primary twisted cords.

Randle and Ikeda - The reasons for the traversal of these is provided herein above.

Kuribayashi - Kuribayashi arguably teaches polyamide fibers.

Nevertheless, like Randle and Ikeda, Kuribayashi fails to disclose, teach, or suggest twisted cords having an intermediate elongation at 0.85cN/dtex of 2.2 to 5.0%.

Kuribayashi also fails to disclose, teach, or suggest twisted cords having an elongation at break of 8 to 19%.

Moreover, Kuribayashi fails to disclose, teach, or suggest twisted cords having a number of twists of 15 to 30/10 cm.

The non-final Office Action contends that it would have been obvious to one having ordinary skill in the art at the time Applicant's invention was made to select a double-twist structure as the twisted cords of Randle and Ikeda depending upon the intended end result of the hose since double-twist structures are well-known and substitutable twist structures for twisted cords used in formation of braided reinforcement layers for rubber hoses, and taught by Kuribayashi.

In response to this contention, the twisted cords having a double-twist structure are absent from within Kuribayashi.

"Allegations concerning specific 'knowledge' of the prior art, which might be peculiar to a particular art should also be supported and the appellant similarly given the opportunity to make a challenge." (Citations omitted). *In re Pardo and Landau*, 214 USPQ 673, 677 (CCPA 1982). Moreover, the procedures established by Title 37 of the Code of Federal Regulations expressly entitle the Applicant to an Examiner's affidavit upon request. Specifically, "when a rejection in an application is based on facts within the personal knowledge of an employee of the Office, the data shall be as specific as possible, and the reference must be supported, when called for by the applicant, by the affidavit of such employee, and such affidavit

shall be subject to contradiction or explanation by the affidavits of the applicant and other persons.” 37 C.F.R. §1.104(d) (2).

Accordingly, Applicant hereby requests a reference or an Examiner’s affidavit to support this officially noticed position of obviousness or what is well known.

Further note that if this reference or Examiner’s affidavit is not provided, the assertions of what is well known must be withdrawn. See M.P.E.P. §2144.03.

Also note that the failure to provide any objective evidence to support the challenged use of Official Notice constitutes clear and reversible error. *Ex parte Natale*, 11 USPQ2d 1222, 1227-1228 (Bd. Pat. App. & Int. 1989).

Withdrawal of this rejection and allowance of the claims is respectfully requested.

Conclusion

The claims are considered allowable for the same reasons discussed above, as well as for the additional features they recite.

Reversal of the Examiner’s decision is respectfully requested.

If any fee is required or any overpayment made, the Commissioner is hereby authorized to charge the fee or credit the overpayment to Deposit Account # 18-0013.

Dated: August 29, 2006

Respectfully submitted,

By 

David T. Nikaido

Registration No.: 22,663

Brian K. Dutton

Registration No.: 47,255

RADER, FISHMAN & GRAUER PLLC

Correspondence Customer Number: 23353

Attorneys for Applicant

CLAIMS APPENDIX

1. (Previously presented) A power steering hose comprising:

an inner rubber layer,

an outer rubber layer,

at least two reinforcing layers inserted between the inner and outer rubber layers, and

an intermediate rubber layer interposed between the adjacent reinforcing layers, the reinforcing layers composed of twisted cords of organic fibers,

wherein the twisted cords have an intermediate elongation at 0.85cN/dtex of 2.2 to 5.0%, an elongation at break of 8 to 19% and a number of twists of 15 to 30/10 cm, respectively.

2. (Original) The power steering hose according to claim 1, wherein the elongation at break of the twisted cords ranges from 13 to 19%.

3. (Original) The power steering hose according to claim 1, wherein the organic fibers are one type of fibers selected from the group consisting of nylon fibers, polyester fibers, polyvinyl alcohol fibers and polyketone fibers.

4. (Original) The power steering hose according to any one of claims 1, 2 and 3, wherein the twisted cords have a single-twist structure.

5. (Previously presented) The power steering hose according to any one of claims 1, 2 and 3, wherein the twisted cords have a double-twist structure in which a plurality of primary twisted cords is twisted together with final twists in a same twist direction of the primary twisted cords.

6. (Original) The power steering hose according to claim 4, wherein the reinforcing layers are formed by braids of the twisted cords.

7. (Original) The power steering hose according to claim 5, wherein the reinforcing layers are formed by braids of the twisted cords.

EVIDENCE APPENDIX

There is no other evidence which will directly affect or have a bearing on the Board's decision in this appeal.

RELATED PROCEEDINGS APPENDIX

There are no other appeals or interferences which will directly affect or be directly affected by or have a bearing on the Board's decision in this appeal.